THE *OEDURA TRYONI* COMPLEX: EAST AUSTRALIAN ROCK-DWELLING GECKOS. (REPTILIA : GEKKONIDAE)

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THE *OEDURA TRYONI* COMPLEX: EAST AUSTRALIAN ROCK-DWELLING GECKOS. (REPTILIA : GEKKONIDAE)

By H. ROBERT BUSTARD

SYNOPSIS

Following an historical review of the genus *Oedura* Gray the specific distinctness of *O. tryoni* De Vis from *O. marmorata* Gray is confirmed. *O. tryoni* as previously recognized is shown to be a complex comprising two distinct species one of which is described as new. The two species are geographically isolated, the nearest populations being five hundred miles apart. Since the original type material of *O. tryoni* has been lost a neotype is proposed for *O. tryoni* in the interests of stability. Aspects of the ecology are discussed.

INTRODUCTION

THE genus *Oedura* is morphologically divided into two groups. One group comprises *Oedura robusta* Boulenger and the two subspecies of *O. lesueurii* (Dum. & Bibr.) and is characterized by minute granular dorsal scales. The other possesses moderately large, flat, juxtaposed dorsal scales arranged in regular rows ; it includes *O. marmorata* Gray which, as currently defined, contains two distinct species, and *O. monilis* De Vis and *O. tryoni* De Vis. The geckos previously referred to as *O. tryoni* form a discrete group of predominantly rock-dwelling *Oedura* which can be divided into two forms on the basis of morphology, size, coloration and geographic distribution. *O. tryoni* as recognized by Cogger (1957) is herein split into two species and the variation within them is discussed.

Collections of *Oedura* are expanding rapidly, as is the increase of ecological knowledge of the genus, and it is now possible to examine the status of the forms grouped together as *Oedura tryoni*. Before describing the *Oedura tryoni* complex it is necessary to review the status of certain other members of the genus, since absence of clear-cut morphological differences has caused considerable confusion.

Since 1944 when Loveridge placed the African species in a separate genus (*Afroedura*), a decision which has recently been confirmed by osteological studies by Cogger (1964), the genus *Oedura* has been restricted to Australia and consists of *O. marmorata* Gray, 1842 ; *O. tryoni* De Vis, 1884 ; *O. monilis* De Vis, 1887 ; *O. robusta* Boulenger, 1885 ; *O. lesueurii lesueurii* (Dum. & Bibr., 1836) and *O. lesueurii rhombifer* Gray, 1845.

MATERIALS AND METHODS

At sexual maturity in *Oedura* preanal pores develop in male specimens and are accompanied by a conspicuous bulge at the base of the tail. Since both of these secondary sexual characters are always lacking in females the sexes can be readily separated. It is not possible to sex juveniles.

Specimens possessing male characters are considered mature although growth continues for at least one year after attainment of sexual maturity. Adult size for a species is based on the range of size of specimens definitely identifiable as males. Specimens of about mean male size or above not showing male characters are considered as mature females. The size at sexual maturity in females is, therefore, arbitrary except when a field study is in progress, then it is defined as size at first breeding.

Throughout the paper the following abbreviations are used :

BMNH.	British Museum (Natural History)
AM.	Australian Museum, Sydney
QM.	Queensland Museum
NMV.	National Museum of Victoria

CHARACTERS OF THE GENUS *OEDURA* GRAY

(Modified after Boulenger, 1885)

Limbs pentadactyl ; digits free, all clawed, dilated at the base with raised distal joint bearing a discoid dilation which has two large plates inferiorly, separated by a long groove into which the claw is retractile. Proximal to the distal plates are two to six paired and one to six undivided plates. Upper surface covered with homogenous, juxtaposed scales ; abdominal scales juxtaposed or slightly imbricate. Pupil vertical. Body depressed. Femoral and preanal pores in the male.

HISTORICAL REVIEW OF *OEDURA TRYONI*

Gray (1842) proposed the genus *Oedura* and described *Oedura marmorata*. In 1884 De Vis described *O. tryoni*.

Oedura ocellata Boulenger, 1885 was later (1887) synonymized with *O. tryoni* by Boulenger when he received the 1884 description by De Vis based on specimens from Stanthorpe, south-east Queensland. However, examination of the six syntypes of *ocellata* in the British Museum collection has shown that five are conspecific with *O. monilis* and only one with *O. tryoni*. A lectotype will be selected from the five specimens conspecific with *monilis* and the full implications of this will be explained in a later paper.

Phyllodactylus (= *Oedura*) *castelnaui* Thominot (1889) was synonymized with *O. tryoni* by Zietz (1920). The author has examined the three syntypes of *Oedura castelnaui* and has found Zietz's action to be incorrect. *Oedura castelnaui* belongs to the *O. marmorata* complex and is being reinstated as a full species (Bustard, in prepn.).

Loveridge (1934) synonymized *O. tryoni* with *O. marmorata*. Loveridge was influenced by a specimen of *O. marmorata* from Port Darwin mentioned by Longman (1915) which had the infralabials separated by an azygous scale behind the mental, a character which Boulenger believed to be distinctive of *tryoni*.

Cogger (1957) drew attention to a differentiated population of *O. tryoni* in North Queensland and showed that it differed in interorbital and mid-body scale row counts from the southern population of the same species. He considered that they were possibly subspecifically distinct but took no action due to the lack of material at his disposal.

THE STATUS OF *OEDURA TRYONI* DE VIS

The species which possess moderately large, flat, juxtaposed, dorsal scales arranged in regular rows are similar in external morphology and differ most obviously in size, pattern of markings and coloration. The confusion concerning the validity of *O. tryoni* which led Loveridge (1934) to synonymize it with *O. marmorata* was caused in part by the inadequate material available for study. However, the main cause was the partly inaccurate description of *Oedura marmorata* given by Boulenger (1885) and based on thirteen specimens. He wrote, " mental triangular, shorter than the adjacent labials, which are in contact behind it ". This feature is certainly not characteristic of *marmorata*. Fifty-three specimens definitely identifiable as *marmorata* were examined and in fifty of these the adjacent labials did not meet behind the mental. In the remaining three specimens (A 4891 and A 4893 (both from Port Essington, N.T.) and R 12366 (one of two specimens from Yirrkala, via Darwin, N.T.), Australian Museum collection, Sydney) the adjacent labials do meet as figured by Boulenger (1885, pl. IX, 2). Boulenger also wrote, " Tail thick, short, much depressed, oval, the end tapering to a point ; its width is contained twice or twice and a half in its length, and equals at least the width of the body ". While this statement is applicable to regrown tails from certain localities, e.g. the Northern Territory, it is untrue for original tails. In this and other genera where the tail is used as a food store, its condition is entirely dependent on the nutritional state of the animal. For this reason gross tail morphology is an unreliable taxonomic character.

The result of Boulenger's error has been to throw doubt on the specific status of *tryoni* rather than to instigate a redescription of *marmorata*.

Cogger (1957) has shown that *tryoni* is a valid species, on the basis of ecological information and meristic characters. A glance at living material is sufficient to separate *marmorata* and *tryoni* on the basis of colour and markings and this also applies to most preserved material. Full details of coloration and its geographic variation are given by Cogger (1957).

Oedura tryoni is restricted to eastern Australia (parts of N.S.W. and Queensland) whereas *O. marmorata* occurs in all States on the mainland of Australia, except Victoria.

O. tryoni and *O. marmorata* can usually be readily separated morphologically by the postanal tubercles. In the case of *marmorata* there are one to four large tubercles (mostly 2–4) whereas in *tryoni* there is a single postanal tubercle. Fifty specimens definitely identifiable as *marmorata* were examined and in only one was there a single postanal tubercle. Twenty-six specimens possessed two, fifteen had three, and seven had four postanal tubercles. Fifty specimens of *tryoni* were examined and in every case there was a single postanal tubercle.

O. tryoni is therefore accepted as a distinct species. As has been indicated above there are no valid synonyms.

All the syntypes of *O. tryoni* held in the Queensland Museum have been lost. No cataloguing of material was carried out prior to 1911, and it has proved impossible to identify these specimens in spite of a thorough personal examination of all the gekkonid material held at the museum. Since *O. tryoni* has not found universal acceptance and furthermore since the *tryoni* complex is being divided into two species, it seems desirable that a neotype should be designated in the interests of stability.

The author has visited the type locality of *O. tryoni* (Stanthorpe, S.E. Queensland) and made a collection of this species on Mount Marlay, elevation 2,850 ft., a rocky hillside within the town. From this series of topotypic material a specimen consistent with De Vis' original description of *O. tryoni* is selected as neotype.

Oedura tryoni De Vis

(Plates 1, 2)

Neotype. AM. R 21601, Mount Marlay, Stanthorpe, S.E. Queensland (the original type locality). Collected under rock (pl. 1) by the author and Dr. P. Maderson, September, 1964. Adult female.

Description of Neotype. Head large, greatly depressed, oval, eye large, snout moderately long, ear opening oblique. Body much depressed. Limbs moderate. Digits strongly dilated, less broad than the apical dilation which is moderate, rounded, as broad as long. Four pairs of broad infradigital plates under the third and fourth toes of hind feet with indication of division of the fifth plate on the third toe, followed by three to four undivided lamellae. Head covered with hexagonal or rounded, moderately sized, flattened scales, interorbitals number twenty-one, rostral four-sided, about twice as broad as high, with median cleft above ; nostril pierced between the rostral, first labial, and four nasals. The anterior nasal greatly elongated transversely, its depth contained at least twice in its breadth, in contact with its fellow on the opposite side ; eleven upper and nine lower labials, mental triangular. First infralabials deep, separated by a moderate octagonal scale below the mental. Back covered with juxtaposed flat round scales, considerably larger than those on the head and arranged in a regular transverse series, becoming markedly smaller on the flanks ; abdominal scales juxtaposed, flat, rounded, larger than the dorsal scales. Mid-body scale row count about one hundred and eight. Tail regenerated, moderate length, depressed, thick, the end tapering to a point ; the regenerated portion is covered with uniform square scales arranged like the bricks of a wall. Postanal tubercle single.

Dorsal coloration (in spirits) pale grey with interspersed scales of a donkey brown colour. Pale grey ocellate markings edged with donkey brown occur on the head, body and limbs. On the head they are conspicuous on the post-orbital to occipital region. On the body these form transverse bands of ocelli (pl. 1). In life the darker colour is honey brown ; lower surface dirty white, each scale possesses up to a dozen or more minute donkey brown spots. Dimensions : Absolute dimensions in mm. are followed by percentage of snout-vent length in brackets; snout-vent 88; tail (regrown) 58 (66); head 17 (19); snout 9 (10); orbit 4·5 (5); eye to ear 8 (9); width of head 18 (20); axilla to groin 40 (45); left fore limb length 27 (31); left fourth finger 5·5 (6); left hind limb length 31·5 (36); left fourth toe 6 (7).

DIAGNOSIS OF *O. TRYONI*. A species of *Oedura* with flat, round, juxtaposed dorsal scales about as large as the ventrals, characterized by numerous irregularly placed spots smaller than the orbit on the dorsal surfaces. The dorsal area of the head possesses a pattern of pale markings on a darker ground colour.

Referred Material in Australian State Museums and the British Museum (Natural History)

AUSTRALIA (no precise locality): (BMNH. 54.11.1.1: syntype of *O. ocellata*). NEW SOUTH WALES: Moonbi Range (AM. R 17676–17681), 13 miles N. of Bendemeer (between Tamworth and Armidale) (BMNH. 1964.1503–1508; AM. R 21608–21612), Inverell (AM. R 1947 and R 20952; BMNH. 96.7.1.5), Port Macquarie (AM. R 15092), 16 miles S. of Tenterfield on the road from Glen Innes (BMNH. 1964. 1502), Tenterfield (AM. R 13118), Bundarra (AM. R 15649), Moree (AM. R 1815). QUEENSLAND: Dalby (AM. R 17772–17774), Chinchilla (AM. R 2801–2805; QM. J 12591–12598 and 12600), Brisbane (AM. R 18310), Eidsvold, Upper Burnett River (AM. R 5404–5408, R 5307–5309, R 5832, R 6210), Maryborough (AM. R 20991 and R 20994), Cooroomon, near Rockhampton (BMNH. 1926.2.25.21). Emuford (AM. R 15641), Fletcher (NMV. D 131), 3 miles west of Amiens (NMV. D 9314–9319, 9321–9323, 9325–9347, AM. R 21605–21606), near Pozieres (AM. R 21607), Boonah (QM. J 6418), Bell, Darling Downs (QM. J 2294), Woodford, N.C. Line (QM. J 3870), Warwick (QM. J 1354), 5 miles N. of Warwick (BMNH. 1964.1509–1510, Gympie (QM. J 12390, J 12391–12395), Alum Rock Station, via Amiens (QM. J 11975; BMNH. 1964.1511–1512), near Tara (BMNH. 1964.1501; AM. R 21613), Mount Marlay, Stanthorpe, (AM. R 21602–21604; BMNH. 1964.1496–1500).

VARIATION. (1) Subdigital lamellae. On the fourth toe of the hind foot of *tryoni* there are 4–6 divided subdigital lamellae (75% possess 4), followed by 1–4 (usually 3) undivided ones. That is, omitting the distal plates, *tryoni* possesses 6–8 enlarged subdigital lamellae, in over 70% of those examined 7 or 8.

(2) There is some variation in the number of labials; upper 10–12, lower 9–12.

(3) The variation in interorbital scale and mid-body scale row counts is illustrated in text-fig. 1. A detailed examination of the geographical variation in interorbital and mid-body scale row counts was made to see if these variations were clinal. No correlation was found to exist between latitude and scale counts.

(4) The variation in the pattern of markings is illustrated in pl. 2. Almost all specimens are characterized by well defined ocelli on the upper surface. Exceptional specimens (for example BMNH. 1964.1501, pl. 2 collected at Tara, South Queensland) have these replaced by numerous very small spots. There is little variation in coloration the ground colour being brown or grey-brown and the ocelli cream or creamy-yellow. The main variation occurs in the arrangement of the ocelli which

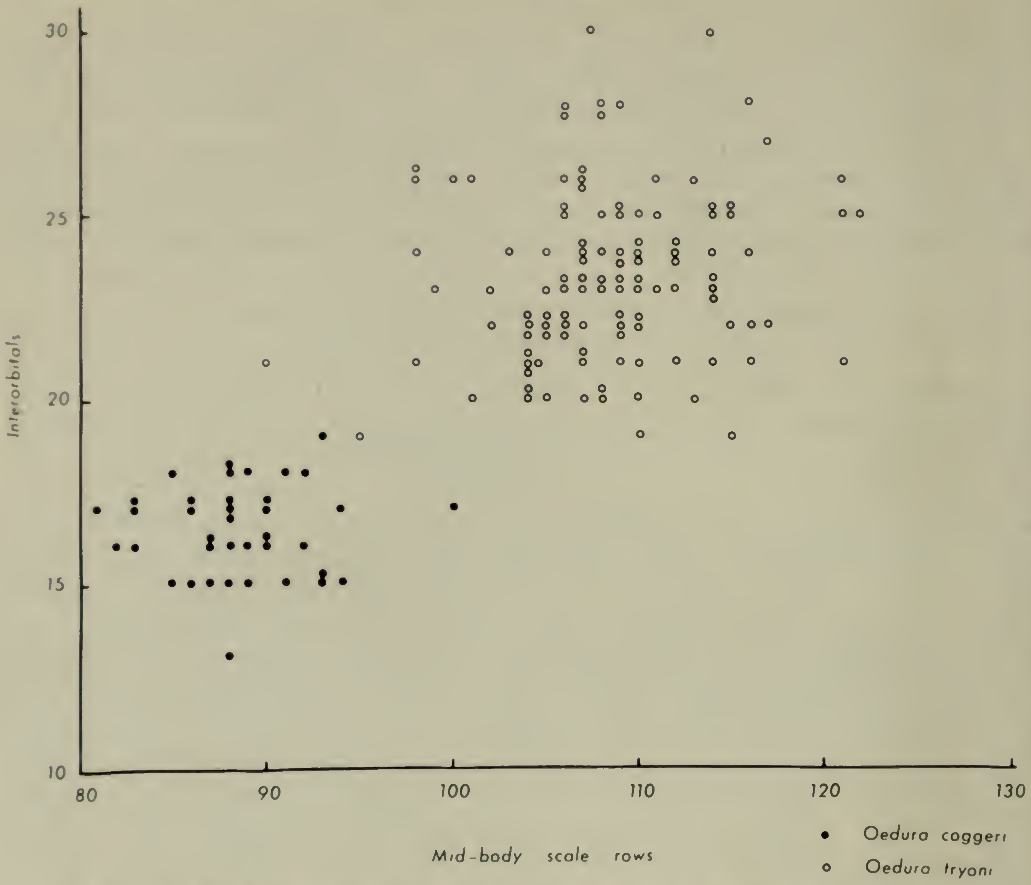

FIG. 1. Counts of mid-body and interorbital scales in *O. tryoni* and *O. coggeri*.

are usually placed transversely. Complete fusion forming continuous transverse bands never takes place, the individual ocelli invariably remain distinct, see below. The colour pattern of the northern populations of *tryoni* does not resemble *coggeri* more closely than that of the southern populations. Although populations of *tryoni* can be separated by slight differences of colour and pattern these do not form a north-south cline.

(5) Dimensions. The dimensions of 6 adult topotypic *tryoni* (BMNH. 1964. 1496–1499 and AM. R 21602–21603) are given below. No sexual dimorphism was found in any of the measurements taken. Averages are bracketed: Snout-vent 71–84 (78) mm., tail (where original) 77 (one only); head 21–23 (22); snout 9–10 (9); orbit 5; eye to ear 8–9 (8·5); width of head 20–21 (21); axilla to groin 41–44 (43); left fore limb 26–31 (29); left fourth finger 6–7 (6); left first limb 36–40 (38); left fourth toe 7–8 (7). The snout-vent length of 60 adult *tryoni* is 52–98 (77) mm. The smallest and largest males have a snout-vent length of 52 and

88 mm. respectively. There is no evidence to suggest a cline of decreasing size with decrease in latitude, the size range being similar in the north and south of the geographic range of the species.

The form previously considered as the northern population of *O. tryoni* was found to be markedly smaller and of a very variable colour pattern. There is considerable overlap in body colour pattern between the two species, but constant pattern differences occur on the head (see diagnosis). The northern population possess a lower average subdigital lamellae count, and much larger and thus fewer interorbital and body scales than the southern population of *O. tryoni*. Text-fig. 1 shows that on the basis of scale number (i.e. number of interorbitals and number of scales in a mid-body scale row around the circumference of the body) the two populations can be completely separated. In general the two forms can be separated on either scalation character. However, there is a region, shown in text-fig. 1, where there is overlap in either character used alone but if the two characters are used together a line of difference separating all individuals of the two species can be clearly defined.

The degree of morphological differentiation between *tryoni* and *coggeri* in a genus where morphological differences even between sympatric species are slight, the demonstrated fact that the differences in scale counts, pattern of markings and size are not clinal in nature and the marked geographical isolation of the two species (both have discrete geographic ranges, see text-fig. 2) has led the author unhesitatingly to describe the northern population as a new species.

Oedura coggeri sp. n.

(Pls. 1, 3)

HOLOTYPE. AM. R 17791—Lappa Junction, North Queensland, Australia, collected under rock by Mr. W. Hosmer, 24th January, 1954. Adult female.

PARATYPES. All localities mentioned are in North Queensland: Lappa Junction (AM. R 17783–17790, R 17793–17803), Petford (AM. R 17629–17631 and R 17771), Herberton (AM. R 16679), Emuford (AM. R 15641), Irvinebank (AM. R 15644), Hartley's Creek, nr. Cairns (AM. R 17767–17770), Mt. Garnet (BMNH. 1964.1494; QM. J 9290), 81 miles N.W. of Cairns on road to Laura via Mt. Carbine (BMNH. 1964.1495), Stannary Hills (QM. J 1293–5), Ravenshoe (BMNH. 1923.10.13.1–2).

DESCRIPTION OF HOLOTYPE. Head large, greatly depressed, oval, eye large, snout moderately long, ear opening oblique. Body much depressed. Limbs moderate. Digits strongly dilated, almost as broad as the apical expansion, which is moderate, rounded, as broad as long. Four pairs of broad infradigital plates under the third and fourth toes of hind feet, followed by two or three undivided ones. Head covered with uniform hexagonal or rounded, large flat scales, interorbitals number fifteen, rostral four-sided, at least twice as broad as high, with median cleft above. Nostril pierced between rostral, first labial, and four nasals. The two upper nasals large, the transverse length of the anterior nasal about equal to its depth, the supranasal in contact with its fellow on the opposite side. Ten upper and ten lower labials, mental triangular. First infralabial deep, separated by a large octagonal scale below the mental. Back covered with juxtaposed flat round scales, of a similar size to those on the head, arranged in a regular transverse series, not becoming markedly smaller on the flanks. Abdominal scales juxtaposed, flat, rounded, of a similar size or slightly larger than the dorsal scales. Mid-body scale row count about eighty-eight. Tail regenerated, moderate length, depressed, not noticeably thick, the end tapering to a point ; the regenerated portion is covered with equal square scales arranged like the bricks of a wall. Postanal tubercle single. Dorsal coloration fawn with dark brown reticulate markings continued on to the limbs and tail. A dark line along the upper border of the snout immediately above the supralabials, commencing at the rostral, passing through the eye and forming a " V-shaped " marking on the nape of the neck. Postorbital to occipital region of head unmarked (pl. 1). Lower surfaces cream.

DIMENSIONS. Absolute dimensions in mm. are followed by percentage of snout-vent length in brackets : snout-vent 65 ; tail (regrown) 34 (52) ; head 16·5 (25) ; snout 7 (11) ; orbit 4 (6) ; eye to ear 6·5 (10) ; width of head 13·5 (21) ; axilla to groin 30 (46) ; left fore limb length 20 (31) ; left fourth finger 3·5 (5) ; left hind limb length 26 (40) ; left fourth toe 5 (8). The smallest and largest males of *coggeri* have a snout-vent length of 44 and 68 mm. respectively.

VARIATION AMONG THE PARATYPES. The following characters are subject to variations :

(1) Subdigital lamellae. On the fourth toe of the hind foot of *coggeri* there are 3–4 divided subdigital lamellae (both occur in equal proportions), followed by 1–3 (usually 2) undivided ones. That is, omitting the distal plates, *coggeri* possesses 5–6 enlarged subdigital lamellae. The overlap in number with *tryoni*, however, prevents the lamellar arrangement being used as a diagnostic feature.

(2) Occasionally (in AM. R 17784–17785 and 17802) there is only one small nasal instead of two. The presence of two large nasals is constant.

(3) There is considerable variation in the labials ; upper 8–12, lower 8–11.

(4) The variation in interorbital scale and mid-body scale row counts is illustrated in text-fig. 1. As with *O. tryoni* a test was made for a north-south clinal variation in scale counts. No evidence for this was found.

(5) There is considerable variation in the pattern of markings. Juveniles are brown with circular or transverse cream markings. In adults the ground colour is cream to brown. Some specimens possess dark brown reticulate markings. In many specimens these enclose oblong or circular patches of cream colour. In others there are definite cream spots outlined in dark brown on the dorsal surface. The ventral surface is white. This pattern variation is not clinal, even within a single series—14 specimens from Lappa Junction—the range of colour pattern is very great, the three basic types outlined above being present (pl. 3).

(6) DIMENSIONS. No sexual dimorphism was found in any of the measurements taken. Separate figures are given where differences occur between adults and juveniles. Figures other than snout-vent length are given as percentage of snout-

vent, averages are bracketed: snout-vent: adults 50–70 (61) mm., juveniles 33–43 (37) mm.; tail (where original) 53–78 (66); head: adults 24–28 (26), juveniles 28–30 (29); snout: adults 10–12 (11); juveniles 11–13; orbit: adults 6–7 (6), juveniles 7–8 (7); eye to ear 7–11 (10); width of head: adults 18–23 (21), juveniles 21–24 (22); axilla to groin 34–46 (41); left fore limb 24–34 (30); left fourth finger: adults 5–7 (6), juveniles 6–7 (7); left hind limb 34–44 (40); left fourth toe: 6–9 (7).

DIAGNOSIS OF *O. COGGERI*. A species of *Oedura* with flat, round, juxtaposed, dorsal scales about as large as the ventrals, characterized by numerous irregularly placed spots much smaller than the orbit. The spots frequently coalesce to form transverse cross bands (pl. 3).

The spotted specimens of *coggeri* can be separated from *tryoni* by the possession of a pale unspotted area in the postorbital to occipital region of the head. This area is bounded by a line running along the side of the head, passing through the eye, and joining with its neighbour at the nape of the neck.

DISTRIBUTION AND HABITAT

The distribution of *Oedura coggeri* and *O. tryoni* is shown in text-fig. 2. Neither species penetrates far inland and both are probably restricted to Eastern Australia.

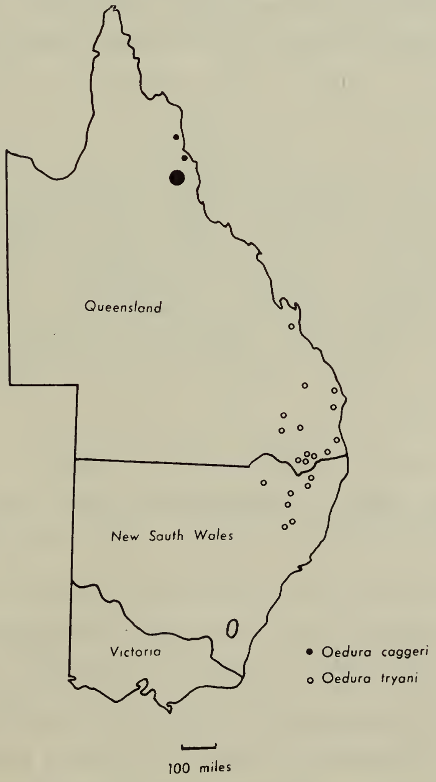

FIG. 2. Distribution of *O. tryoni* and *O. coggeri*.

The two species are separated by a gap of over five hundred miles in which to date no specimens of either species have been collected. As with *O. marmorata* suitable habitat occurs in this region and this has been searched by the author so far without success.

The ecology of *Oedura tryoni* has been examined recently (Cogger, 1957) and *Oedura coggeri* appears to occupy a similar niche. Both species seem generally to inhabit rock crevices but some individuals live on trees. Of the two specimens of *coggeri* collected in North Queensland by the author (p. 9) one was under the bark of a dead iron bark tree (*Eucalyptus* spp.) at a height of four feet from the ground and the other under a slab of a large granite boulder forming part of a low granite outcrop in *Eucalyptus* savannah-woodland. Prolonged searching failed to locate further specimens at either locality.

DISCUSSION

O. coggeri is by far the smallest species of the group possessing flat, round, juxtaposed dorsal scales, which also includes *marmorata*, *monilis* and *tryoni*. The species *marmorata*, *monilis* and *tryoni* are most readily separated by coloration which Cogger (1957) has convincingly shown to be a reliable character. *O. marmorata* possesses about five or six light-coloured cross bands. In many geographical areas these bands break up in adults and the resultant light patches are irregular in shape and size. *O. monilis*, *tryoni* and some specimens of *coggeri* are the only species of *Oedura* characterized by spots. *O. tryoni* and some *coggeri* possess numerous, irregularly placed, small, light-coloured spots. The distribution and size of these spots is diagnostic as pointed out by Cogger. In *tryoni* and *coggeri* the spots are numerous and much smaller than the orbit whereas in *monilis* they are much fewer in number (typically only five or six pairs which may show various degrees of fusion), and are at least as large as the orbit. *O. monilis* possesses a conspicuous, pale-coloured " V-shaped " marking or nuchal band on the nape of the neck, formed by the fusion of two ocelli. This characteristic band is usually absent in *tryoni* and *coggeri*, and is to be distinguished from the dark lines along the upper border of the snout which may join to form a "V" in some specimens of *coggeri* (e.g. the holotype, pl. 1). Another useful character, Cogger (pers. comm.), is the presence in *monilis* of a light area on the side of the head with its upper edge extending from the angle of the mouth to the ear and thence to about the insertion of the fore limb. This is typically absent in *tryoni* and *coggeri*.

Morphological differences in relative scale size are summarized in text-fig. 1.

The relationship of *O. coggeri* to other members of the genus can be considered only tentatively at present. The author considers that *coggeri* is probably the northern representative of *tryoni*. *O. tryoni* may at one time have had a continuous distribution from New South Wales through South-East and East-Central Queensland to the Cape York Peninsula. Geographic isolation of the two populations at a later time led to the observed speciation. Although *tryoni* has been considered strictly rock dwelling (Cogger, 1957), in several localities the author has found specimens on trees (*Eucalyptus* spp. and *Acacia harpophyla*) and it is possible that formerly this habitat was much more extensively used. Competition may have prevented the continued exploitation of this habitat and present day *tryoni* and *coggeri* populations mainly occur in rock crevices. At Mount Garnet the northern population of *O. marmorata* and *O. lesueurii rhombifer* were common below the bark of dead trees (*Eucalyptus* spp.) in the area where the specimen of *O. coggeri* was collected. The three forms are also known to be sympatric in a area between Atherton and Mt. Garnet.

The distribution of *tryoni* and *coggeri* is closely paralleled by the distribution of *Oedura marmorata* in Eastern Australia where there is a geographical gap of some 500 miles between northern and southern populations. The northern population of *O. marmorata* has twice received specific recognition (as *castelnaui* and *mayeri* Garman (1901)) and is to be separated from *O. marmorata* occurring elsewhere in Australia and restored to specific status following an Australia-wide study on the *O. marmorata* complex (Bustard, in prepn.).

Oedura coggeri is named after Mr. Harold G. Cogger, Curator of Reptiles and Amphibians in the Australian Museum, Sydney, in recognition of his pioneer work in applying the results of ecological investigation to the systematics of this difficult genus.

The author's collection of twenty-two specimens has been deposited in the British Museum (Natural History) and the Australian Museum, Sydney.

SUMMARY

A detailed examination of museum material together with ecological field collecting has confirmed the specific distinctness of *Oedura tryoni* De Vis. *O. tryoni* as currently defined is shown to comprise two species. *O. coggeri* n. sp. is described from North Queensland. It is tentatively suggested that *O. coggeri* differentiated from *O. tryoni* following geographic isolation. The syntypes of *O. tryoni* have been lost and a neotype is proposed in the interests of stability.

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PLATE 1

UPPER ROW (left to right): neotype of *Oedura tryoni* De Vis, holotype of *Oedura coggeri* n. sp. LOWER ROW: *O. tryoni* habitat at Mt. Marlay, Stanthorpe. The neotype was collected from under the slab at bottom centre.

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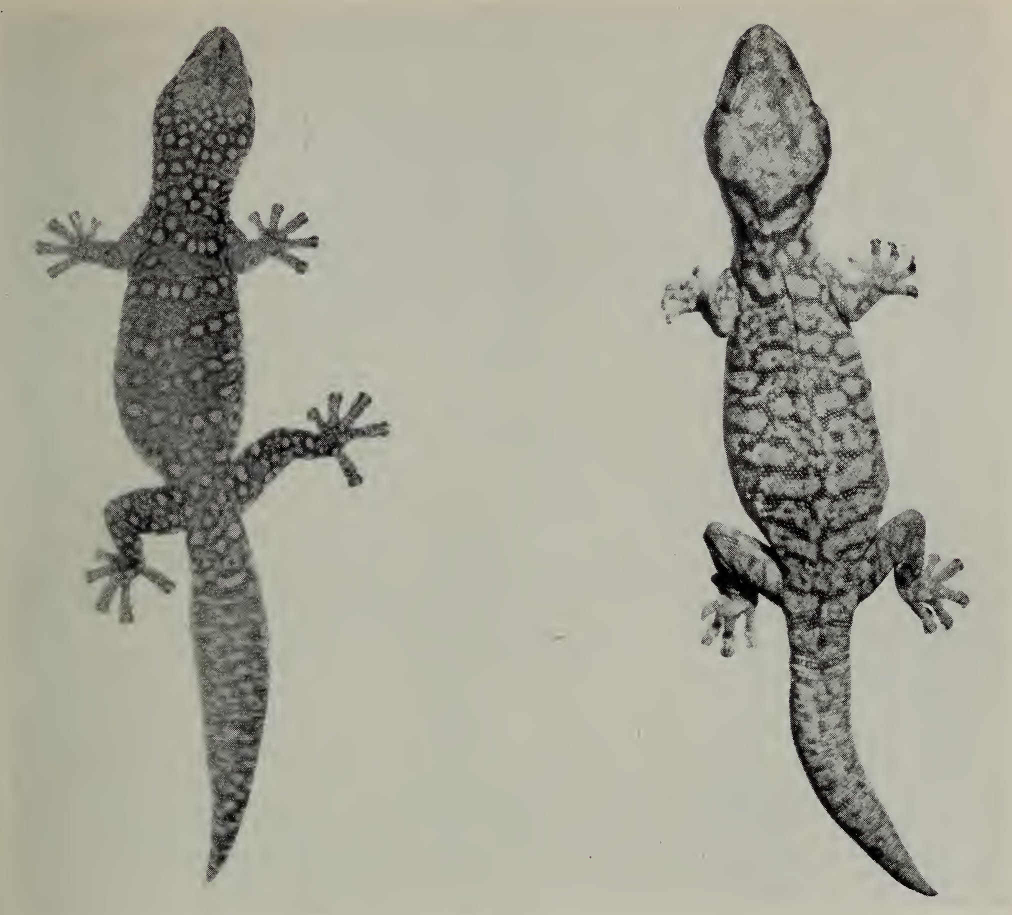

PLATE 2

Top row (left to right): *O. tryoni* juvenile from type locality (Stanthorpe), adult *Acacia* dwelling variant from Tara, S. Queensland and juvenile from 13 m. north of Bendemeer.

Middle and bottom rows: Variation among adult topotypic *O. tryoni*.

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PLATE 2

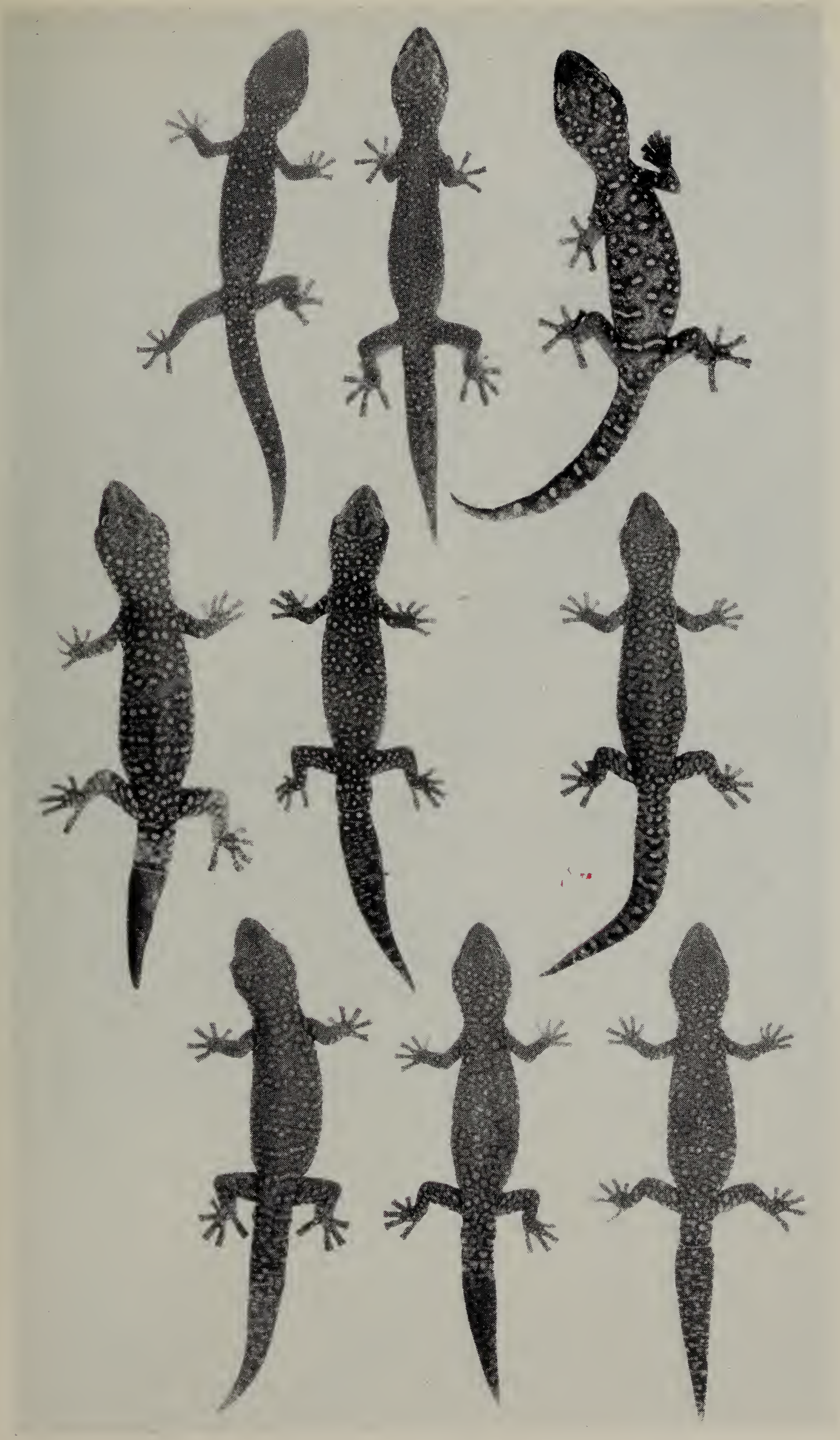

PLATE 3

Variation among *O. coggeri*. TOP ROW: Petford. MIDDLE ROW: Hartley's Creek, near Cairns. BOTTOM ROW: Lappa Junction.

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